



Multi-treatment approach to complex wound management of a circumferential leg wound caused by cellulitis

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Before treatment with Suprasorb® X



One week after Suprasorb® X



18 weeks after initial assessment having used both Suprasorb® X and Actico® short stretch bandaging

Background Information and challenges

This case study discusses the care and management of a man who had suffered extensive tissue loss and associated pain as a result of cellulitis for which he had been hospitalised for systemic antibiotic therapy. Cellulitis can spread rapidly and may become life threatening (Eagle 2007). He had been referred to several specialist teams in an attempt to ease his pain and treat his wounds. The challenges faced by the tissue viability specialist nurse were his lowered immune status which could impede healing and increase the risk of infection, the level of devitalised tissue, and the extreme pain which made compression difficult.

Pain is a well known symptom of cellulitis and requires prompt treatment (Beldon, Burton 2005)

Aims: The aims of treatment varied as the tissue type and exudate levels changed. The main aims were initially to debride devitalised tissue, prevent infection and offer pain relief to this immuno-compromised patient in preparation for on-going compression. Autolytic debridement of the wound increased the volume of exudate, leading to a new aim of treatment.

Methods: On referral by the general practitioner, this leukaemic man presented with a circumferential necrotic leg wound caused by a resolved episode of cellulitis.

Holistic assessment: Immuno-compromised state and raised pain levels caused by the extensive leg wounds.

Wound assessment: On visual assessment there was 90% dry necrotic tissue, 10% slough, multiple areas of tissue loss and minimal exudate. Pain levels were initially 10/10 on the visual analogue scale.

Vascular assessment: Doppler studies showed no evidence of arterial disease, making the limb safe to compress.

Regime 1: New conformable biosynthetic wound dressings, Suprasorb® X were applied to rehydrate and facilitate autolytic debridement of the necrotic tissue. Early experiences and a randomised controlled trial with these dressings have shown effective autolytic debridement and pain relief (Dini et al 2008). The cooling effect of the dressings provided immediate pain relief to this patient in this case study. The dressings were easy to apply, conformed well around the limb and were secured with semi-permeable film dressings.

Regime 2: Once the necrosis was removed, larvae were applied to remove all the slough and reduce the risk of infection due to his immuno-compromised state and past history of cellulitis.

Regime 3: Ionic sheet hydrogel dressings, ActiFormCool® provided continued pain relief and absorption of the exudate that was produced by autolysis. Reduced compression was applied over the dressings to aid venous return and assist healing.

Results: Necrotic tissue was completely removed in 10 days, with evidence of granulation tissue within 3 weeks. Initial pain level of 10/10 reduced to 6/10 with larvae therapy, 2/10 after topical negative pressure therapy and is now constant at 1/10 following compression with Actico® cohesive short stretch bandaging. Effective treatment resulted in subsequent reduction in analgesia and concordance with compression, with no evidence of infection.

Conclusion: The aims of treatment can change according to the progress of the wound, cause of wounding and underlying pathologies. By using a selection of treatment modalities, successful outcomes were achieved.

References:

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- Dini V, Bertone MS, Barbanera S, Brilli C, Romanelli M, (2008), Improvement of treatment in patients with venous leg ulcer by a new pain-reducing wound dressing with HydroBalance, Wounds UK Conference Harrogate